



Jeb Bush
Governor

Department of Environmental Protection

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

RECEIVED
David S. Struhs
Secretary

AUG 01 2000

BUREAU OF AIR REGULATION

NOTICE OF PERMIT ISSUANCE

In the Matter of an Application
for Permit by:

Mr. T.W. Fuchs
General Manager, New Wales Facility
IMC-Agrico Company
P.O. Box 2000
Mulberry, FL 33860

DEP Permit No.: 1050059-030-AC

Dear Mr. Fuchs:

Enclosed is Permit Number 1050059-030-AC for the construction of a 150 ton per hour granular monoammonium phosphate (GMAP) fertilizer plant, issued pursuant to Section 403.087, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tampa, Florida.

Sincerely,

Eric Peterson, P.E.
Air Permitting Engineer

cc: Mr. Charles David Turley, P.E., IMC
Mr. Al Linero, P.E., DARM

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on JUL 27 2000 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

JUL 27 2000
(Date)



Department of Environmental Protection

Jeb Bush

Governor

PERMITTEE:

IMC-Agrico Company
P.O. Box 2000
Mulberry, FL 33860

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

Permit No.: 1050059-030-AC
Effective Date: 07/27/00
Expiration Date: 7/31/01
Project: Granular MAP Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-204 through 297, and Chapter 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

This construction-modification permit allows the conversion of the existing Granular Triple Super Phosphate (GTSP) Plant to a Granular Monoammonium Phosphate (GMAP) Plant. Some of the existing GTSP equipment, as well as new equipment, will be used in the conversion. The converted plant will have a maximum production rate of 150 tons per hour of GMAP (75 TPH P₂O₅ feed). The production of GTSP is not allowed, unless authorized in a subsequent construction permit.

GMAP is made by reacting anhydrous ammonia and phosphoric acid in a covered reaction tank with the further addition of ammonia and acid in a granulator. The granulated product is then dried in a rotary drier. The dried product is further processed by screening, milling (oversized), and reprocessing (undersized). The properly sized product is conveyed to the storage building for eventual loadout.

The dryer has a maximum design heat rate input of 63.7 MMBtu/hr and is fired with natural gas or No. 6 fuel oil (2.50% sulfur max.). The maximum heat rate input used in GMAP production will be 30 MMBtu/hr. The rate will be controlled by the operator through instrumentation either manually or automatically.

New Equipment

New emission sources include a reactor, product cooler, and polishing screens. New air pollution control equipment includes a venturi scrubber with cyclonic demisting, impact sprays, cooler cyclone, and an irrigated Kimre™ (mesh) pad. GMAP Plant process emission sources and associated air pollution control equipment are listed on the next page.

Air Pollution Control System

Emissions from the dryer, product cooler, and material handling equipment are directed to cyclones for product recovery. Emissions from the reactor, granulator, dryer cyclones and cooler cyclone are directed to the Main Scrubber System. The Main Scrubber System includes a venturi and dual cyclonic demisters, which are used to recover ammonia and to control particulate matter and fluoride emissions. The scrubbing medium is recirculated phosphoric acid. Remaining fluoride and particulate matter are further controlled by 3 impact sprays, an irrigated Kimre™ pad, and a Kimre™ demist pad. The scrubbing medium is recirculated fresh water. Emissions from various material handling equipment are directed to the Equipment Scrubber System, consisting of a venturi, 4 impact sprays, and a cyclonic demister for control of particulate matter and fluoride emissions. The scrubbing medium is recirculated fresh water.

PERMITTEE:
 IMC-Agrico Company
 New Wales Facility

Permit No.: 1050059-030-AC
 Project: GMAP Plant

The Main Scrubber System and the Equipment Scrubber System are ducted to a common stack for exhaust to the atmosphere.

Note: If requested, the Department is amenable to authorizing a test program to evaluate an alternate control method consisting of an additional Main Scrubber System impact spray in place of the irrigated Kimre™ pad. This configuration is referenced as Option 4 in the accompanying BACT Determination. The additional impact spray may be installed, but not operated, unless in conjunction with the aforementioned test program.

Product Transport, Storage, and Loadout

GMAP will be oiled and conveyed to a storage building via the product conveyor. Oiled GMAP is not expected to be a source of particulate matter emissions. As a result, use of the storage building scrubber system is not required by this permit. GMAP will be stored in the northern portion of the existing product storage building and loaded into railcars or trucks by the existing loadout system.

Granular MAP/DAP Emission Sources & Associated Control Equipment

Process Emission Source*	Control Equipment
Reactor	Main Scrubber System - venturi, 2 cyclonic demisters, 3 impact sprays, irrigated Kimre™ pad, and Kimre™ demist pad
Granulator	
Dryer	
Product Cooler	
Dryer Lump Breaker	Equipment Scrubber System - venturi; 4 impact sprays, cyclonic demister
Dryer Spillage Belt	
Granulator Feed Elevator	
Screens Feed Elevator	
Recycle Conveyor	
Chain Mills (4)	
Screens (4) - following Screens Feed Elevator	
Product Elevator	
Cooler Feed Conveyor	
Polishing Screens (A & B)	
Product Bin	indirectly vented to product cooler
Product Conveyor	covered conveyor
Product Storage Building	enclosed building

*from process flow diagram revised March 10, 2000

Rule Applicability:

- The GMAP Plant will be subject to 40 CFR 63 Subpart BB, *National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Plants*. Compliance with this subpart must be achieved no later than June 10, 2002.
- The GMAP Plant is subject to Rule 62-296.403(i), F.A.C., *Phosphate Processing*. This rule requires Best Available Control Technology (BACT) to control fluoride emissions.
- The facility has requested that this project be permitted as a non-PSD source. Therefore, this permit contains limitations to ensure that this modification does not exceed PSD significant increase levels.

PERMITTEE:

IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

Location: New Wales Facility, 3095 Highway 640, Mulberry, Polk County
UTM: Zone 17; 396.6 km East, 3079.4 km North
Latitude: 27° 50' 13" North **Longitude:** 82° 02' 56" West
Facility ID No.: 1050059

Referenced Attachments

Best Available Control Technology (BACT) Determination
DEP Memorandum dated December 17, 1983: Simultaneous Test for Fluorides and Particulates
Letter from DEP dated September 30, 1983: Testing of Fluorides and Particulates
Letter from Mr. Tom Fuchs dated September 20, 1983: Testing of Fluorides and Particulates
Alternate Procedures and Requirements ASP No. 95-H-01

Permit History: The conversion to a GMAP Plant is a modification of the previously permitted GTSP Plant. The GTSP Plant (Emissions Unit No. 010) is considered inactive. To simplify the Department's computer database, a new Emissions Unit No. (078) is assigned to the GMAP Plant.

The following conditions apply to the emissions units listed below:

EU No.	EU Description
012	Product Storage Building (formerly the GTSP Storage Building) - Unregulated EU
078	GMAP Plant
Notes: EU = Emissions Unit	
Please reference Permit No. and Emission Unit No. in all correspondence, test report submittals, etc.	

Specific Conditions:

1. A part of this permit is the attached 15 General Conditions and BACT Determination.
[Rule 62-4.160, F.A.C.]
2. All applicable rules and design discharge limitations specified in the application must be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations.
[Rule 62-210.300, F.A.C.]
3. Unless otherwise indicated, the construction of the GMAP Plant shall be in accordance with the capacities and specifications in the application or in updated submittals.
[Rule 62-210.300, F.A.C.]

Operation Limitations

4. **Allowable Fuels.** The permittee is authorized to burn only the following fuels in the dryer:
 - (a) Natural gas.
 - (b) New No. 6 fuel oil or better grade with a fuel oil sulfur content of up to 2.50 %S, by weight. A better grade fuel oil is defined as a fuel oil with a higher ranking in the following list:

Better Grade (a fuel above another is considered better than those below)

- New No. 2 fuel oil
- New No. 3 fuel oil

PERMITTEE:
IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

New No. 4 fuel oil
New No. 5 fuel oil
New No. 6 fuel oil
[Rule 62-210.200(PTE), F.A.C.]

5. No more than 1,448,895 gallons of new No. 6 fuel oil (based on a sulfur content of 2.50 %S by weight or equivalent gallons adjusted for actual sulfur content) shall be fired in the dryer in any consecutive 12-month period.

[Rule 62-210.200(PTE), F.A.C.]

Permitting Note: Specific Condition Nos. 4 and 5 ensure that the increase in SO₂ emissions due to this project is below the PSD significant increase level and therefore PSD review is not triggered.

6. The Granular MAP/DAP Plant is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

7. The P₂O₅ process input rate shall not exceed 75 TPH (daily average basis) and 657,000 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.]

8. The maximum production rate of GMAP shall not exceed 150 TPH (daily average basis) and 1,314,000 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.]

9. The permittee shall not allow any person to circumvent any pollution control device nor allow the emissions of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

10. As of the effective date of this permit, the following Emissions Units will no longer be used and their associated emissions will not be used in future PSD applicability determinations:

005 - Ground Phosphate Rock Unloading Station (to be demolished)

006 - Storage Silo

021 - Feed Bin

[application received 3/16/00]

Permitting Note: The reduction in actual emissions due to shutdown of Emissions Unit Nos. 005, 006, and 021 have been used to qualify this project as a PSD minor for PM/PM₁₀.

11. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any emissions unit whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling without taking reasonable precautions to prevent such emissions.
[Rule 62-296.320(4)(c)1, F.A.C.]

12. Reasonable precautions may include, but shall not be limited to the following:

(a) Paving and maintenance of roads, parking areas and yards.

(b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

(c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stockpiles and similar emissions units.

PERMITTEE:
IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

- (d) Removal of particulate matter from roads and other paved areas under the control of the permittee of the emissions unit to prevent reentrainment, and from buildings or work areas to prevent particulate matter from becoming airborne.
- (e) Landscaping or planting of vegetation.
- (f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- (g) Confining abrasive blasting where possible.
- (h) Enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c)3, F.A.C.]

13. The following work practices (reasonable precautions) shall be followed:

- (a) apply oil to the GMAP prior to discharge to the product conveyor and, if necessary, apply additional oil at product loadout
- (b) maintain covers and/or enclosures for the product conveyor
- (c) maintain roof/walls for the product storage building

[Rule 62-296.320(4)(c)2, F.A.C.]

14. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320, F.A.C.]

Emission Limitations

15. Total fluoride emissions from the GMAP Plant shall not exceed 2.40 lb/hr, 10.5 tons per year, and 0.032 lb F/ton of P₂O₅ input.

[Rule 62-210.200 (PTE), F.A.C.; BACT Determination (attached)]

16. PM/PM₁₀ emissions from the GMAP Plant shall not exceed 9.68 lb/hr, 42.4 tons per year, and 0.0645 lb PM/ton of product.

[Rules 62-210.200 (PTE)]

Permitting Note: This limit is more stringent than a previous limit established to avoid PM RACT (see IMC letter dated 11/29/94)

Excess Emissions

17. The GMAP Plant shall be subject to the following:

(a) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(c) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

PERMITTEE:
IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

(d) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(1, 4-6), F.A.C.]

Permitting Note: This rule can not vary any requirement of an applicable 40 CFR Part 63 provision.

Monitoring Requirements

18. The permittee shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 percent over its operating range.

[Rule 62-213.440(1)(b), F.A.C.]

19. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in TPH of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of Specific Condition No. 18 and then by proceeding according to the following procedure:

The equivalent P_2O_5 feed rate (P) shall be computed for each operating day using the equation:

$$P = (M_p) \times (R_p)$$

where: M_p = total mass flow rate of phosphorus-bearing feed (TPH)

R_p = P_2O_5 content, decimal fraction

An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the feed.

[Rule 62-213.440(1)(b), F.A.C.]

20. The permittee shall install, calibrate, maintain, and operate monitoring systems which continuously measures and permanently records the pressure drop in 15-minute block averages separately across the following: Main Scrubber System venturi, Equipment Scrubber System venturi, and irrigated Kimre™ pad. Each monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.

[Rule 62-213.440(1)(b), F.A.C.]

21. The permittee shall install, calibrate, maintain, and operate monitoring systems which continuously measures and permanently records the liquid flow rate in 15-minute block averages separately across the following: Main Scrubber System venturi and impact sprays, Equipment Scrubber System venturi and impact sprays, and the irrigated Kimre™ pad. Each monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.

[Rule 62-213.440(1)(b), F.A.C.]

22. The permittee shall determine and record the Main Scrubber System venturi scrubbing medium pH, via grab or composite sample, at least once per operating day.

[Rule 62-213.440(1)(b), F.A.C.]

23. Recordkeeping for Specific Condition Nos. 20, 21, and 22 shall include the date and time of the measurements and the name of the person responsible for recording the measurements. This does not apply to continuous recording devices.

[Rule 62-213.440(1)(b), F.A.C.]

PERMITTEE:
IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

24. Air Pollution Control Operating Parameters The scrubber operating parameters listed in Specific Condition Nos. 20 and 21 shall be operated in accordance with Condition No. II.14 from Permit No. 1050059-014-AV, reprinted below:

14. In order to provide reasonable assurance that the air pollution control equipment or system are operating properly, the permittee shall comply with the following:
- a. The liquid flow rate (gallons per minute) to the pollution control system (e.g., scrubber) does not fall below:
 1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit, or
 2. lower than a minimum liquid flow rate limit specified in a condition of this permit.
 - b. the pressure drop (inches of water) across the pollution control system (e.g., scrubber) shall not fall below:
 1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit,
 2. lower than a minimum pressure drop limit specified in a condition of this permit.
 3. In the case of pressure drops of less than 5 inches of water, a change of 0.5 inches of H₂O below the drop reported during the most recent satisfactory compliance test, following the final issuance of this permit.
 - c. The average liquid flow rate or pressure drop over a 24 hour period may be used in determining the "liquid flow rate" or "pressure drop" in 14.a. and 14.b. above. It shall not be considered a violation if the liquid flow rate or pressure drop falls below the 90% value or specified minimum limit if another compliance test, at the same pollution control system parameters is conducted within 30 days and shows compliance. Such tests shall be conducted in accordance with the testing conditions specified for a standard compliance test as specified in the conditions within.
 - d. If an additional compliance test is to be conducted, as described in 14.c. above, then the permittee shall submit a proposed test protocol, for approval by the Department, with the test notification (See Condition No. 13).

[Rule 62-4.070(3), F.A.C.]

Compliance Testing Requirements

25. Initial Compliance Test Not later than 180 days after the GMAP Plant's initial startup, the permittee shall conduct initial compliance tests for fluorides and PM/PM₁₀.
[40 CFR 60.8(a) and Rule 62-297.310(7)(a)1, F.A.C.]

26. Subsequent Compliance Tests The GMAP Plant shall be tested for fluorides each federal fiscal year after the initial compliance test. In addition, in the year prior to the five-year anniversary of the initial PM/PM₁₀ compliance test, conduct a PM/PM₁₀ compliance test.
[Rule 62-297.310(7)(a)3 & 4, F.A.C.]

Permitting Note: Since there is reason to believe that fluoride emissions increase with increasing ambient temperature, if the testing is not conducted during May through October, additional testing may be required (ref. Specific Condition No. 33).

PERMITTEE:
IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

27. Test Methods

(a) Fluoride emissions testing shall be conducted in accordance with EPA Method 13A or 13B or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. (see attached ASP No. 95-H-01).

(b) PM/PM₁₀ emissions testing shall be conducted in accordance with EPA Method 5 or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. The sample volume for each run shall be at least 30 dscf.

(c) The minimum requirements for stationary point source emission test procedures shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60 Appendix A.

[Rules 62-296.320(4)(a)3(i), 62-297.310(4)(a)2, 62-4.070(3) & 62-297.401, F.A.C.]

28. At least 15 days prior to the date on which the initial GMAP Plant compliance tests are due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of the Department's Southwest District (DEP-SWD). The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test. [Rule 62-297.340(1)(i), F.A.C.]

29. **Test Operation Rate.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit (i.e., 150 TPH production rate and 75 TPH P₂O₅ input rate).

[Rule 62-297.310(2), F.A.C.]

30. **Test Report.** The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the DEP-SWD on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall provide the following information for each test run:

- GMAP production rate (TPH)
- P₂O₅ input rate (TPH)
- Heat input rate (MMBtu/hr) and fuel type
- Liquid flowrate (gpm) and pressure drop (inches H₂O) for the venturi scrubbers and the irrigated Kimre™ pad
- Liquid flowrate (gpm) for the impact sprays
- pH for the Main Scrubber System venturi scrubbing medium

[Rule 62-297.310(8), F.A.C.]

31. Compliance testing of the GMAP Plant shall be conducted when firing No. 6 fuel oil if fuel oil has been used in the plant for more than 400 hours for the previous 12-month period proceeding the test, or if it is expected to be used in the plant for more than 400 hours during the next 12-month period. If the test is conducted while firing natural gas and in the 12-month period following the test No. 6 fuel oil is burned for more than 400 hours, then additional fluoride and PM/PM₁₀ tests (while burning No. 6 oil in the plant) shall be conducted within 30 days of having passed the 400 hour fuel oil burning level. The

PERMITTEE:

IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

permittee shall submit a statement of the fuel operating mode (type of fuel and heat input rate) as a part of the compliance test report. Failure to submit the fuel operation mode statement may invalidate the data and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]

32. If emission testing is conducted while firing No. 6 fuel oil, compliance with the No. 6 oil sulfur content limitation in Specific Condition No. 5 shall be demonstrated during the test through submission of either of the following with the test report:

- (a) Results of fuel oil analysis from the fuel oil vendor showing the sulfur content representative of the fuel fired during the compliance test;
- (b) Results of a fuel oil analysis showing the sulfur content for a fuel oil sample taken during the compliance test.

[Rule 62-213.440, F.A.C.]

33. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

Reporting And Recordkeeping Requirements

34. The permittee shall furnish written notification to the Department as follows:

- (a) A notification of the anticipated date of initial startup of the GMAP Plant postmarked not more than 60 days nor less than 30 days prior to such date.
- (b) A notification of the actual date of initial startup of the GMAP Plant postmarked within 15 days after such date.

[Rule 62-4.070(3), F.A.C.]

35. A recordkeeping log shall be established and maintained to document compliance with Condition Nos. 5, 7, 8, and 31. The daily logs shall be updated and completed by the end of the next operating day. The monthly logs shall be updated and completed by the 15th day of the following month. The logs shall include, at a minimum, the following:

daily (by the end of the next operating day)

- (a) date
- (b) hours of operation
- (c) the calculated P_2O_5 feed rate (TPH, daily average basis)
- (d) the calculated GMAP production rate (TPH, daily average basis), noting the conversion factor
- (e) hours and type of fuel oil usage

monthly (by the 15th day of the following month)

- (f) month
- (g) monthly P_2O_5 input and production of GMAP (tons)
- (h) P_2O_5 input and production of GMAP for the most recent consecutive 12-month period (tons)
- (i) monthly total fuel oil usage (gallons)

PERMITTEE:

IMC-Agrico Company
New Wales Facility

Permit No.: 1050059-030-AC
Project: GMAP Plant

- (j) total fuel oil usage for the most recent consecutive 12-month period (gallons)
- (k) monthly total hours of fuel oil usage
- (l) total hours of fuel oil usage for the most recent consecutive 12-month period

These records shall be retained on file at the facility for at least five years and shall be made available to the Department upon request. [Rule 62-213.440(1)(b), F.A.C.]

36. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department 60 days before the expiration of the permit.
[Rule 62-4.090, F.A.C.]

37. The permittee shall submit an Annual Operating Report to the Department's Southwest District office by March 1 of the following year for the previous year's operation.
[Rule 62-210.370(3), F.A.C.]

PSD Applicability

38. Based on the limitations contained in this permit, this modification at an existing PSD major facility is not considered a significant modification subject to PSD review on the basis that the net emissions increases associated with the modification were determined to be not significant (ref. Table 2, Rule 62-212.400, F.A.C.). Should the permittee request relaxation of any emission or operational limitations in this permit that would affect the potential to emit of this facility, the Department will evaluate the applicability of the PSD requirements of Chapter 62-212, F.A.C. as if the modifications allowed by this permit had not yet taken place.
[Rule 62-212.400(2)(g), F.A.C.]

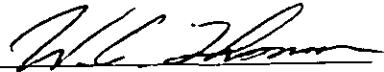
Title V Operation Permit

39. A request for an operation permit must be submitted to the Department at least 180 days prior to the expiration date of this construction permit. To properly request an operation permit, the permittee shall submit:

- (a) A completed DEP Form 62-210.900(1), F.A.C., *Application for Air Permit - Title V Source*.
- (b) A copy of the test report required in Specific Condition No. 30, unless previously submitted.
- (c) A copy of the records required in Specific Condition No. 35 for the most recent month.

[Rules 62-4.070(3) & 62-210.300(2), F.A.C.]

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION


W.C. Thomas, P.E.
District Air Program Administrator
Southwest District

ATTACHMENT - GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. Not applicable to Air Permits.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under conditions of the permit;

GENERAL CONDITIONS:

- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonable necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of noncompliance; and
- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to educe, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300 F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

GENERAL CONDITIONS:

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

16. Not applicable to Air Permits.

17. Not applicable to Air Permits.

DRAFT BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

**IMC-Agrico Company
New Wales Facility
Polk County**

1. BACKGROUND

The applicant proposes to modify an existing Granular Triple Super Phosphate (GTSP) Plant to allow production of up to 150 tons per hour (TPH) of Granular Monoammonium Phosphate (GMAP) fertilizer. Some of the existing GTSP equipment, as well as new equipment, will be used in the conversion. The production of GTSP is not allowed, unless authorized in a subsequent construction permit. The facility is located at 3095 Highway 640, Mulberry, Polk County.

New emission sources include a reactor, product cooler, and polishing screens. New air pollution control equipment includes a venturi scrubber with cyclonic demisting, impact sprays, and a cooler cyclone. This project addresses the following emissions unit(s):

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
012	Product Storage Building (formerly the GTSP Storage Building) - Unregulated EU
078	GMAP Plant

The GMAP Plant will be subject to 40 CFR 63 Subpart BB, *National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Plants*. Compliance with this subpart must be achieved no later than June 10, 2002.

The GMAP Plant is subject to Rule 62-296.403(i), F.A.C., *Phosphate Processing*. This rule requires Best Available Control Technology (BACT) to control fluoride emissions.

The facility has requested that this project be permitted as a non-PSD source. Therefore, this permit contains limitations to ensure that this modification does not exceed PSD significant increase levels.

This facility is classified as a Major or Title V Source of air pollution because potential emissions of sulfur dioxide (SO₂), nitrogen dioxides (NO_x), and particulate matter (PM/PM₁₀) each exceed 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for SO₂, NO_x, and PM/PM₁₀, the facility is also a Major Facility with respect to Rule 62-212.400, *Prevention of Significant Deterioration*.

The applicant stated in the permit application received on March 16, 2000 that this facility is a major source of hazardous air pollutants (HAPs).

The project's process information, air pollution control equipment, and rule applicability are discussed in more detail in the Technical Evaluation dated June 30, 2000.

2. DATE OF RECEIPT OF A BACT APPLICATION

March 16, 2000, and updated by additional information as shown in the Technical Evaluation.

c:/permits/imcnw/granmap/bact2.doc

DRAFT BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

3. BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed BACT for the PSD pollutant fluoride (F). BACT was proposed to be control equipment for fluoride emissions from the GMAP Plant.

Emission Limit: 0.037 lb F/ton of P₂O₅

Control Technology: The Main Scrubber System consisting of a medium energy venturi with cyclonic demisting using recirculated phosphoric acid as the scrubbing medium, followed by four sets of impact sprays using recirculated fresh water, followed by a mesh demist pad; and the Equipment Scrubber System consisting of a medium energy venturi and four sets of impact sprays, both using recirculated fresh water as the scrubbing medium, followed by cyclonic demisting are the proposed air pollution control devices.

4. REVIEWER(S)

Gerald Kissel and Eric Peterson prepared BACT determination

5. BACT DETERMINATION PROCEDURE

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques for control of each such pollutant. In addition, Rule 62-212.400(6)(a), F.A.C., states that in making the BACT determination, the Department shall give consideration to:

1. Any Environmental Protection Agency determination of BACT pursuant to Section 169 of the Clean Air Act, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
2. All scientific, engineering, and technical material and other information available to the Department.
3. The emission limiting standards or BACT determination of any other state.
4. The social and economic impact of the application of such technology.

The EPA currently directs that BACT should be determined using the "top-down" approach. In this approach, available control technologies are ranked in order of control effectiveness for the emissions unit under review. The most stringent alternative is evaluated first. That alternative is selected as BACT unless the alternative is found to not be achievable based on technical considerations or energy, environmental or economic impacts. If this alternative is eliminated for these reasons, the next most stringent alternative is considered. This top-down approach is continued until BACT is determined. In general EPA has identified five key steps in the top-down BACT process: Identify alternative control technologies; eliminate technically infeasible options; rank remaining control technologies by control effectiveness; evaluate most effective controls; select BACT.

BACT evaluation should be performed for each emissions source and pollutant under consideration.

The Department will consider the control or reduction of "non-regulated" air pollutants when determining the BACT limit for regulated pollutants, and will weigh control of non-regulated air pollutants favorably when considering control technologies for regulated pollutants. The Department will also favorably consider control technologies that utilize pollution prevention strategies. These approaches are consistent with EPA's consideration of environmental impacts.

The EPA has determined that a BACT determination shall not result in a selection of a control technology which would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).

DRAFT BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

In addition to the information submitted by the applicant and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For each emission source, the Department's BACT determination is based on the information provided by the applicant and the judgement of the Department.

6. BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

The applicant proposed a control strategy for fluoride emissions at the GMAP Plant. The applicant's proposal and the Department's BACT for each pollutant and source is discussed below.

6.1 GMAP PLANT

In accordance with Rule 62-296.403(i), F.A.C., *Phosphate Processing*, a BACT determination is required for all plants, plant sections, or unit operations not listed in paragraphs (a) - (h) for the pollutant fluoride (granular monoammonium phosphate plants are not listed).

The applicant proposed BACT for MAP production to be the use of venturi scrubbing, impact sprays, and demisting with a limit of 0.037 lb F/ton P₂O₅. The use of the proposed system, with a limitation on the amount of P₂O₅ input, will result in estimated maximum emissions of 12.0 TPY of fluoride. A review of the RACT/BACT/LAER Clearinghouse (RBLC) data shows that BACT for fluoride removal is generally packed bed scrubbing. A recent BACT determination done by the Department's Southwest District has a venturi scrubbing system as BACT (ref. Permit No. 1050051-008-AC). That determination resulted in the most stringent BACT fluoride emission limit found, at 0.037 lb F/ton P₂O₅.

Fluoride Controls

The applicant evaluated the following exhaust control technologies to control fluoride emissions, starting with the most stringent (all options follow the Main Scrubber System venturi and precede a Kimre™ demist pad (non-irrigated); the Equipment Scrubber System is common to all options):

1. Three sets of impact sprays and an irrigated Kimre™ pad, both using recirculated fresh water.
2. Four sets of impact sprays and a packed scrubber, both using recirculated fresh water.
3. Four sets of impact sprays using recirculated fresh water and packed scrubber using once through process water.
4. Four sets of impact sprays using recirculated fresh water.
5. Packed scrubber using recirculated fresh water.

Costs, provided by IMC-Agrico, are summarized below.

Ranked Option	IMC-Agrico Alternative No.	Capital Cost	Total Control Cost (\$/ton F removed)	Incremental Control Cost (\$/additional ton F removed)
1	5	181,591	5,459	29,340
2	3	649,197	11,175	95,892
3	2	261,525	8,339	165,333
4	1	85,525	3,191	-(base case)
5	4	176,000	7,661	-(higher emissions than base)

The Department disagrees with the applicant's assessment that Option 4 represents the best selection. Based on the information provided by the applicant and the judgement of the Department, additional control of fluoride emissions is feasible. BACT for this project for fluoride shall be Option 1 with a limit of 0.032 lb F/ton P₂O₅.

DRAFT BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

P₂O₅ input shall be limited by permit condition to 657,000 TPY to limit potential fluoride emissions to approximately 10.5 TPY.

6.5 SUMMARY OF BACT DETERMINATION

Emissions Unit	Pollutant(s)	Emission Limit(s)	BACT
078	fluoride	2.40 lb/hr, 10.5 TPY, and 0.032 lb F/ton of P ₂ O ₅ input.	Three sets of impact sprays and an irrigated Kimre™ pad using recirculated fresh water.

7. COMPLIANCE

The compliance methods are briefly summarized here; more detail is provided in the attached permit. Emission testing is required for the GMAP Plant for fluorides initially and annually thereafter.

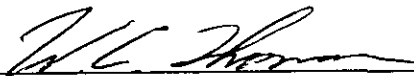
Compliance with the fluoride limits shall be in accordance with EPA Method 13A or 13B as contained in 40 CFR 60, Appendix A, or other Department approved methods.

8. DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Gerald Kissel, P.E., Air Permitting Supervisor
Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619

Prepared July 7, 2000

Approved By:



W.C. Thomas, P.E.
District Air Administrator

7-27-00

Date:

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/OR To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional ()	Reply Required ()	Info. Only ()
Date Due: _____	Date Due: _____	

TO: Jim Estler, Bob Garrett, George Richardson, Louis Fernandez
 FROM: Ken Roberts *rh*
 DATE: December 17, 1983
 SUBJECT: Simultaneous Test for Fluorides and Particulates

Tallahassee has approved simultaneous testing for fluorides and particulates as per a letter from AGRICO to Jim Manning dated 9/20/83. There are some specific conditions that must be met however, to insure accurate results. They are as follows:

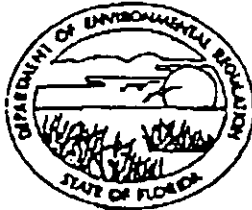
- 1). The heated filter which is to be placed in front of impingers must be a standard glass fiber stack filter that is normally used in method 5 or a comparable paper filter. If the glass fiber filter is used several blanks must be run through the fluoride analysis to assure us that there will be no interference.
- 2). A stainless steel frit must be used behind the filter. A glass frit is not acceptable.
- 3). Deionized water is to be used for washing probe, nozzle, front half of filter holder and any connecting glassware. Acetone should not be used.
- 4). Tallahassee would prefer that the used filters be desiccated to dryness rather than oven-dried. However, this is not a requirement.
- 5). A known aliquot is to be taken from the total known wash volume for fluoride analysis. After evaporation of the wash a weight per milliliter of wash should be computed to correct for the aliquot removed for the fluoride analysis.
- 6). After the filter has been properly desiccated (preferably at room temperature) and weighed it should be added to the impinger wash bottle to take into account any soluble fluorides on the filter.

All your assigned sources that normally test for these two pollutants should be notified that simultaneous testing is acceptable. All sources currently testing simultaneously should be made aware of the above specific conditions required by the state.

KR/rh

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2800 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TECHINKEL
SECRETARY

September 30, 1983

D.E.R.

OCT '8 1983

SOUTHWEST DISTRICT
TAMPA

Mr. Tom Fuchs
Agrico Chemical Company
South Pierce Chemical Works
Post Office Box 1969, Highway 630
Bartow, Florida 33830

Dear Mr. Fuchs:

We have reviewed your letter of September 20, 1983, in which you outlined procedures for measuring fluoride and particulate emissions simultaneously. The conditions are in accordance with our telephone conversation.

One point needs to be clarified. In condition #2, it should be understood that "probe wash" includes washing the nozzle, probe, front half of filter holder and any connecting glassware prior to the filter holder.

If I can be of any further assistance, please contact me.

Sincerely,

James Manning
Environmental Engineer
Bureau of Air Quality Management

JM/dt

cc: Bill Blommel w/inc. letter
Bill Thomas, SW District Office w/inc. letter ✓



September 20, 1983

Mr. James Manning
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

DER
BAQM

Dear Mr. Manning,

This letter is in regard to the telephone conversation we had on September 19, 1983, discussing a stack sampling method for measuring fluorides and particulates simultaneously. In our conversation, you described an accepted method for this type of testing. As you know, there are no stack sampling procedures in the regulations for measuring both of these pollutants simultaneously. To ensure that our sampling program is in compliance, we request that you review the procedure described below and submit a letter of confirmation for this method.

The stack sampling procedure for simultaneously testing fluoride and particulate is DER Method 5 - "Determination of Particulate Emissions From Stationary Sources" with the following conditions:

- 1) The filter used to collect particulate is to be placed in the heated compartment in front of the Impinger container.
- 2) Deionized water is to be used for the probe wash instead of acetone.
- 3) To determine the amount of fluoride in the probe wash, a measured volume is extracted for fluoride analysis. An equal aliquot is removed and analyzed for particulate to correct for the particulate removed in the sample used for the fluoride analysis.
- 4) After the filter is properly desiccated (dried at room temperature for 24 hours) and weighed for the particulate analysis, it is added to the Impinger wash bottle to account for the fluorides on the filter.

Mr. James Manning
Page Two

- 5) The determination of total fluoride collected is the sum of the fluoride in the probe wash, impinger wash and the filter.
- 6) The particulate is determined by adding the particulate in the probe wash (after adding in the amount removed for the fluoride analysis) and the filter.

We appreciate your assistance in this matter and look forward to hearing from you.

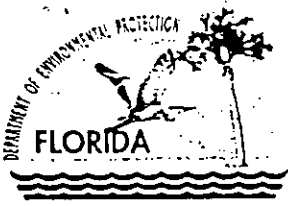
Sincerely,

Tom Fuchs

Tom Fuchs,
Environmental Chemist

cc: L. C. Lahman
V. A. Snow

TWF/lgm



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

September 9, 1996

Certified Mail—Return Receipt Requested

Mr. Bruce D. DeGrove
Assistant Vice President
of Regulatory Affairs
Florida Phosphate Council
215 South Monroe Street
Suite 703
Tallahassee, Florida 32301

SEP 10 1996

Dear Mr. Wall:

Enclosed is a copy of an administrative order concerning the request for approval to use an alternative analytical procedure for EPA Method 13B for the analysis of fluoride samples from phosphate fertilizer facilities.

If you have any questions concerning the above, please call Louis Nichols at 904/488-6140, or write to me.

Sincerely,

For Michael D. Harley, P.E., DEE
P.E. Administrator
Emissions Monitoring Section

MDH/ln

Enclosure

cc: Pat Comer, FDEP
Chris Kirts, Northeast District
William Thomas, Southwest District
Iwan Choronenko, Hillsborough County

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes
THROUGH: Dotty Diltz *D. Diltz*
FROM: Mike Harley *M. Harley*
DATE: September 3, 1996
SUBJECT: Approval of Alternate Standards or Procedures for Florida Phosphate Industry;
Order No. ASP 95-H-01.

Attached for your approval and signature is an Order prepared by the Bureau of Air Monitoring and Mobile Sources that will authorize the Florida phosphate industry to use an alternative analytical procedure (Method 13B without fusion and distillation) in lieu of EPA Method 13B for the analysis of fluoride samples. The Region 4 and Research Triangle Park offices of the U.S. EPA concur with the proposal.

The request for approval of an alternate sampling procedure is based on the results of analyses for all groups of samples using the proposed method (Method 13B without fusion and distillation) and EPA Method 13B. The results of the statistical tests demonstrate that the variance of the alternative analytical procedure is only 3.6 percent greater than the variance for EPA Method 13B. The statistical tests also demonstrate that the alternative analytical procedure, in general, results in higher reported fluoride levels than does EPA Method 13B.

The recommended Order preserves the Department's right to require the use of the original EPA method, if there is reason to believe that the method is necessary to assess the compliance status of the phosphate fertilizer facilities.

I recommend your approval and signature.

MH/ym

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:)

Florida Phosphate Council,)
Petitioner.)

ASP No. 95-H-01

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), Florida Phosphate Council, petitioned for approval to use an alternative analytical procedure for EPA Method 13B for the analysis of fluoride samples from phosphate fertilizer facilities.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. Petitioner is comprised of the following seven companies: CF Industries, Inc.; Cargill Fertilizer, Inc.; Farmland Hydro, L.P.; IMC-Agrico Company; Mulberry Phosphate, Inc.; PCS Phosphate-White Springs; and U.S. Agri-Chemicals.
2. On November 10, 1995, Petitioner requested guidance concerning the most appropriate means of obtaining Florida's approval of an alternative to the analytical procedure in EPA Method 13B for the analysis of fluoride samples from phosphate fertilizer facilities. [Exhibit 1]
3. After evaluating the request and scope of the associated data, the Department determined that it would be appropriate to consider granting approval to use an alternative analytical procedure for EPA Method 13B on an industry-wide basis through an Order pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.).
4. As justification for the use of the alternative analytical procedure, Petitioner stated, "The alternative method affects only the analytical portions of Method 13B and will not affect sample collection or sample recovery. Specifically, the alternative procedure eliminates the requirement to fuse a portion of the sample in sodium hydroxide and the requirement to distill the entire sample from sulfuric acid prior to analysis. The documentation presented herein demonstrates that the proposed method (without fusion and distillation) is as precise as the reference method (a positive bias). The positive bias associated with the proposed method is probably due to fluoride loss during the distillation step of the reference method." [Exhibit 2]

5. Petitioner further stated, "The potential disadvantages of the fusion and distillation steps, when not necessary, are a decrease in the precision of the analytical method and the potential for fluoride loss during the distillation step. Another disadvantage associated with the distillation step of the reference method is the potential danger associated with distilling from sulfuric acid at a temperature of 175 °F. If this potential danger can be eliminated without compromising the precision and accuracy of the analytical method, a major benefit would be realized." [Exhibit 3]

6. Petitioner further stated, "As fluorides present in samples collected from phosphate plants are soluble, the elimination of the distillation step will eliminate the possibility of low fluoride recovery and will provide for a more accurate determination of the fluoride emission rate from affected facilities. The proposed method will also improve the safety of the method by eliminating the sulfuric acid distillation step." [Exhibit 3]

7. The analysis of precision for all groups of samples summarized in Table 1 demonstrates that the variance of the proposed method (Method 13B without fusion and distillation) is only 3.6 percent greater than the variance to the reference method (Method 13B with fusion and distillation). The analysis of bias for all groups of samples summarized in Table 2 demonstrates that the test for all samples results in a mean for the proposed method which exceeds the mean of the reference method by 0.089 mg/l (total fluorides). [Exhibit 3]

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Pursuant to Rule 62-297.310(7), F.A.C., the Department may require Petitioner to conduct compliance tests that identify the nature and quantity of pollutant emission, if, after investigation, it is believed that any applicable emission standard or condition of the permits is being violated.

3. Petitioner has provided reasonable justification that the use of an alternative analytical procedure for EPA Method 13B to analyze fluoride samples will be adequate to verify compliance with the applicable standard.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner's request to use an alternative analytical procedure for EPA Method 13B (without fusion and distillation) to analyze fluoride samples for the purpose of determining the compliance status of the phosphate fertilizer facilities is granted;

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that a true copy of the foregoing was mailed to Mr. Bruce D. DeGrove, Assistant Vice President of Regulatory Affairs; Florida Phosphate Council; 215 S. Monroe Street; Suite 703; Tallahassee, Florida 32301 on this 9th day of September 1996.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to
§120.52(11), Florida Statutes, with the
designated Department Clerk, receipt of
which is hereby acknowledged.

Marela Jane Wise 9/9/96
Clerk Date